

Message

From: Judge, Robert [Judge.Robert@epa.gov]
Sent: 4/21/2017 7:19:38 PM
To: Hall, Chris [Hall.Christopher@epa.gov]
CC: Payton, Richard [Payton.Richard@epa.gov]; Brown, Ethan [Brown.Ethan@epa.gov]; Wells, Benjamin [Wells.Benjamin@epa.gov]; Naess, Liz [Naess.Liz@epa.gov]; Rice, Joann [Rice.Joann@epa.gov]; Lau, Gavin [Lau.Gavin@epa.gov]; Sather, Mark [sather.mark@epa.gov]; Kahn, Peter R. [kahn.peter@epa.gov]; Papp, Michael [Papp.Michael@epa.gov]; Weinstock, Lewis [Weinstock.Lewis@epa.gov]; Khan, Mazeeda [Khan.Mazeeda@epa.gov]; Chow, Alice [chow.alice@epa.gov]; Rinck, Todd [Rinck.Todd@epa.gov]; Compher, Michael [compher.michael@epa.gov]; Verhalen, Frances [verhalen.frances@epa.gov]; Davis, Michael [Davis.Michael@epa.gov]; Fallon, Gail [fallon.gail@epa.gov]; Flagg, MichaelA [Flagg.MichaelA@epa.gov]
Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

The new rule language is different and more clear (effective May, 2016). The CFR language at the time (for 2014, 2015, and some of 2016) said you “should” run a concentration near the mean or median (and the allowable range was 10 ppb to 100 ppb. If a State was doing what the rule intended for ozone- they’d likely be at around 35 ppb. But even if they did the p-check at 70, and failed- would it be appropriate to go out and run 100 ppb and pass? I think the intent of what Mike is saying is that you ran another test, and validated that the monitor was operating properly with no further adjustments.

I don’t think passing an easier test is proof that the instrument is running correctly. (Even more so, what about challenging the instruments at an inappropriate concentration?)

From: Hall, Chris
Sent: Friday, April 21, 2017 3:02 PM
To: Judge, Robert <Judge.Robert@epa.gov>
Cc: Payton, Richard <Payton.Richard@epa.gov>; Brown, Ethan <Brown.Ethan@epa.gov>; Wells, Benjamin <Wells.Benjamin@epa.gov>; Naess, Liz <Naess.Liz@epa.gov>; Rice, Joann <Rice.Joann@epa.gov>; Lau, Gavin <Lau.Gavin@epa.gov>; Sather, Mark <sather.mark@epa.gov>; Kahn, Peter R. <kahn.peter@epa.gov>; Papp, Michael <Papp.Michael@epa.gov>; Weinstock, Lewis <Weinstock.Lewis@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compher, Michael <compher.michael@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>
Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

While I agree with your line of thought Bob I think we are adding a requirement that we may not be able to justify. As long as both checks are in the require range I do not know how we can dictate that the two checks have to be at the same concentration to be acceptable.

Chris

From: Judge, Robert
Sent: Friday, April 21, 2017 11:25 AM
To: Papp, Michael <Papp.Michael@epa.gov>; Weinstock, Lewis <Weinstock.Lewis@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compher, Michael <compher.michael@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Hall, Chris <Hall.Christopher@epa.gov>
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Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

Looks good. Added 3 words in red to attached memo to prevent a State from running and failing a p-check at one concentration, and then running another at a different (presumably higher) concentration, and saying that's compelling evidence of no problem.

Thanks for all your good work on this!

,Bob

From: Papp, Michael

Sent: Friday, April 21, 2017 1:17 PM

To: Weinstock, Lewis <Weinstock.Lewis@epa.gov>; Judge, Robert <Judge.Robert@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compher, Michael <compher.michael@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Hall, Chris <Hall.Christopher@epa.gov>

Cc: Payton, Richard <Payton.Richard@epa.gov>; Brown, Ethan <Brown.Ethan@epa.gov>; Wells, Benjamin <Wells.Benjamin@epa.gov>; Naess, Liz <Naess.Liz@epa.gov>; Rice, Joann <Rice.Joann@epa.gov>; Lau, Gavin <Lau.Gavin@epa.gov>; Sather, Mark <sather.mark@epa.gov>

Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

Yesterday Lew Weinstock, Liz Naess and I presented the OIG issues on the NACAA call. We had some push back on the call but I thought Lew did a great job of making the monitoring organizations understand the issue. During the call there was a discussion of how to validate some data in which a check failed but the monitoring organization went out and did some "as is" QC check or multi-point verification which proved that the analyzer was operating properly. I mentioned on the call that I had started developing a flagging technique that I initially thought would be something that we would start implementing after we got through this current validation process but it sounded like it might be helpful now for those that might want to use it. The document is attached.

The difference in this procedure is now it seems prudent to allow failed 1-point QC checks to be reported to AQS. This is reversal on my past position that the checks should not be included if the data is also invalidated but we can make AQS disregard these points for assessments with the correct flagging technique while still reporting them.

Please let me know what you think about the approach. I ran this past Robert Coats and it's doable. I think minimally if some Regions felt they could use it, the data flagged as "V1" by the monitoring orgs would have to have compelling reason documented and concurred with by the Region through either an email or formal memo back to the Regions and archived here. Region 6 received a formal letter by ODEQ which showed what data they would invalidate and where they had a compelling reason to keep the data. Until we had the full system in AQS working, where you could concur with the AQS data, this would seem acceptable to us.

We may want to have a quick call conference call with the Regions on this technique.

Please send any comment to Lew and I ASAP. If we find this acceptable we could get this out to the monitoring orgs ASAP since they were interested in seeing it.

Thanks and have a good weekend

-----Original Message-----

From: Weinstock, Lewis

Sent: Thursday, April 13, 2017 8:44 AM

To: Judge, Robert <Judge.Robert@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compber, Michael <compber.michael@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Hall, Chris <Hall.Christopher@epa.gov>
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Subject: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues

Importance: High

Good morning:

As you all are aware by now, we have recently identified ambient ozone data in AQS that was reported during periods of time when 1-point QC checks were outside the critical criteria in the QA Handbook and contained in approved monitoring organization QAPP's. We are currently in the middle of the ozone designations process and it is important that we maintain the integrity of that process. It is critical that we base our designations decisions on defensible data for areas both attaining and not attaining the standard. To this end, we believe that the data identified as outside these critical criteria be null coded in AQS so that the underlying design values supporting the designations process are based on valid data. We understand that there is limited time to complete this work due to the tight timelines for designations. Therefore, this process has been divided into two phases as explained below:

Phase 1:

These are high priority monitors whose 2014-2016 design value would change or become incomplete due to the data invalidations. Attached to this message is an Excel table that explicitly lists the monitors and periods of time for when ozone data should be null coded (coded as Phase 1). We ask that you communicate with the affected monitoring organizations to ensure that these data are invalidated in AQS no later than May 1, 2017 (we will be doing our design value pull from AQS on the morning of May 2). Luckily this first phase only affects about 80 monitors, as some states have already begun invalidating their data.

Phase 2:

The list of the remaining monitors that will have similar data invalidation actions are coded as Phase 2 in the Excel table. These monitors have a less immediate impact on designations so are being included in the Phase 2 action. We recognize that this phase affects a larger number of monitors, therefore we are providing more time to invalidate this data. Please work with your monitoring organizations to complete this exercise by August 1, 2017.

Additional details on the Excel table: The attachment contains three tabs: (1) Data Invalidations – which contains specific information for the data invalidation, (2) 2014-2016 Design Values – design values before and after (“a” added to column heading) data invalidations, and (3) Failed QC Checks – details on the actual QC checks. Please contact Liz Naess (Ben Wells is out of the office until 4/24/17) or Mike Papp with questions on the data retrieval (Liz/Ben) or associated QA issues (Mike).

For additional background information on this quality assurance issue, please refer to the attached memo entitled “Ozone 1-point QC Check Data Quality Evaluation and Next Steps”.

We will be checking in periodically during our monthly conference calls to answer any questions and assess progress on this action. Thank you for your prompt attention to this matter.

Lewis Weinstock (Ambient Air Monitoring Group and Liz Naess (Air Quality Analysis Group)

Air Quality Assessment Division - Mail Code C304-06 | Office of Air Quality Planning & Standards | U.S. Environmental Protection Agency | Research Triangle Park, NC 27711 |